

ABSTRACT OF THE DISCLOSURE

A method for measuring substrate bending stiffness and thereby basis weight on a real time basis. Provided is a corrugator having a plurality of parallel ribs, with one or more sheets of the substrate provided below the corrugator wherein a predetermined gap exists between a topmost sheet of the sheets and the corrugator. A vacuum is applied between the corrugator and the topmost sheet, wherein the vacuum is sufficiently large to raise the topmost sheet, thereby deflecting and bending it into a profile corresponding to the arrangement and size of the corrugator ribs and bending stiffness of the substrate. One or more sensors are provided for measuring the deflection of the topmost sheet. The vacuum, an air knife output and/or a fluffer output are then adjusted according to predetermined rules and the measured deflection.